VELICHENKOV, B. I.

USSR/Mining Methods.   Apr 48
        Coal

"Methods of Increasing the Mining of Coal in
the Moscow Coalfield," I. A. Babokin, B. I.
Velichenkov, F. M. Komissarov, Engineers, 5 pp

"Ugol'" No 4

Discusses long pillar method of working, width
of coal face, depth of seam, types of mechanical
coal cutters, spacing of hewers, 3-shift and
2-shift systems, and importance of a dry pit.

                                        1/49T54

FDB

VELICHKA, D.

First quarterly conference of medical workers. Med.sestra 17 no.2:
46 F '58.
(PUBLIC HEALTH)   (MIRA 11:3)

VELICHKA, D.M.

Intravenous injections. Fel'd. i akush. 23 no.10:44-46 O '58
(MIRA 11:11)

1. Zaveduyushchiy fel'dsherako-akusherskim punktom (selo Yusheyevo-Krasnoyarskogo kraya).
(INJECTION INTRAVENOUS)

VELICHKA, D.M. (selo Yukseyevo Krasnoyarskogo kraya)

Care of syringes and their needle attachments. Fel'd. i akush.
25 no.2:57-59 F '60.
(SYRINGES)   (MIRA 13:5)

VELICHKA, D.M., fel'dsher (selo Yukseyevo Krasnoyarskogo kraya)

Diffusion of popular scientific medical literature in rural areas.
Fel'd. i akush. 26 no.6:56-58 Je '61.
                        (HEALTH EDUCATION)   (MIRA 14:7)

VELICHKA, D.N., fel'dsher (selo Yukseyevo Krasnoyarskogo kraya)

More on the technic of intravenous injections. Fel'd. i akush. 24
no.9:57-59 S '59.

(INJECTIONS, INTRAVENOUS)   (MIRA 12:12)

VELICHKA, D.M., fel'dsher (selo Yukseyevo Krasnoyarskogo kraya)

Treatment of erysipeloid (swine erysipelas) with a synthomycin. Fel'd.
1 akush. 26 no. 2:51-52 F '61. (MIRA 14:4)
(CHLOROMYCETIN)

VELICHKA, D.M.

Anesthesia for injections of laked blood. Med.sestra 19 no.8:
36-37 Ag '60.   (MIRA 13:7)

1. Zaveduyushchiy fel'dshersko-akusherskim punktom, Krasnoyarskiy
kray.
                          (BLOOD--TRANSFUSION)

VELICHKA, D.M.

Letters to the editor. Med. sestra 18 no.3:47 Mar '59.   (MIRA 12:3)
(BOL'SHE MURTIN DISTRICT--POLIOMYELITIS)

VELICHKA, D.M. (Yukseyevo Krasnoyarskogo kraya)

Diagnosis of whooping cough. Fel'd. i akush. 25 no.3:42-43
Mr '60.   (MIRA 13:6)
                     (WHOOPING COUGH)

Velichka, I. I.

99-1-2/10

AUTHOR: Velichka, I.I., Chief of the Main Administration of Melioration
at the Council of Ministers of the Lithuanian SSR

TITLE: Melioration Projects in Soviet Lithuania (Meliorativnyye raboty
v sovetskoy Litve)

PERIODICAL: Gidrotekhnika i Melioratsiya, 1958, # 1, pp 9 - 12 (USSR)

ABSTRACT: The flat topography and rather high precipitation in the
Lithuanian SSR favors the forming of swamps and boggy soil
conditions. During the fifth Five-Year Plan (1951-1955)
266,000 hectares of swamps were reclaimed, and 15,700 ha
were drained by covered drainage systems. Plans laid down
by the Central Committee on December 1, 1955, called for re-
clamation of 724,000 ha of swamps during the sixth Five-
Year Plan. Special attention is being paid to subsurface
drainage, as well as mechanization of melioration projects.
By the end of 1957, 21 machine-melioration stations were in
operation, which had at their disposal more than 200 single
scoop and 115 multi-scoop excavators, 23 scrapers, 155 bull-
dozers, 26 graders and other machines. The number of drain-
Card 1/2   age systems in the Lithuanian SSR total 2,305, serving an

Melioration Projects of Soviet Lithuania   99-1-2/10

area of 874,000 ha.
     Scientific-research is being conducted by the Lithuanian
Institute for Hydraulic Engineering and Melioration. Speci-
alists are trained in the Kaunas Agricultural Academy and
the Panevezh Hydromelioration Technical Schools.
     There are 5 photographs and 1 table.

ASSOCIATION: Glavnoye upravleniye melioratsii pri Sovete Ministrov Litovskoy
              SSR (Main Melioration Office at the Lithuanian SSR Council of
              Ministers)

AVAILABLE: Library of Congress

Card 2/2

MAR'YANOV, B.M.; SICH, A.S.[Sych, A.S.]; YAMPOL'SKIY, B.B.[IAmpol's'kyi, B.B.]; VELICHKA, I.O.[Velychka, I.O.], red.; POVOLOTSKIY, A.I. [Povolots'kyi, A.I.], red.; GAVRILETS', D.V.[Havrylets', D.V.], tekhn. red.

[Great 20 years; visual aid]Pro velyke dvadtsiatyrichchia; na-ochnyi posibnyk. Kyiv, Derzhpolitvydav URSR, 1962. 62 p.
(MIRA 16:2)

(Russia—Economic policy)

YEVLAMPIYEV, R.A., inzh.; KUZNETSOV, M.A.; PANASOV, A.Ye., inzh.;
DZYUBENKO, A.U., putevoy obkhodchik-prolazchik, (st. Troitsk,
Yuzhno-Ural'skoy dorogi); MICHURIN, D.N., inzh.; NEVZOROV, I.N.,
putevoy rabochiy (Stavropol', Severo-Kavkazskoy dorogi);
TRIGORLOV, G.I.; VELICHKA, Yu.F., normirovshchik (st.Tomsk,
Zapadno-Sibirskoy dorogi); BUGAYCHUK, I.S. (st.Kazatin, Yugo-
Zapadnoy dorogi); BYCHKO, S.N.; KRASIN, N.A., inzh. (Tashkent);
LOKHMOTKIN, G.A.

Letters to the editor. Put' i put.khoz. 6 no.12:39-41 '62.
                                                (MIRA 16:1)
1. Glavnyy bukhgalter distantsii puti, st. Ryazhsk, Moskovskoy
dorogi (for Kuznetsov). 2. Zamestitel' dorozhnogo revizora po
bezopasnosti dvizheniya, Yaroslavl' (for Michurin). 3. Zamestitel'
nachal'nika Tomskoy distantsii Zapadno-Sibirskoy dorogi (for
Trigorlov). 4. Dorozhnyy master, stantsiya Verkhovtsevo,
Pridneprovskoy dorogi (for Bychko). 5. Mostovoy master, stantsiya
Sinel'nikovo I, Pridneprovskoy dorogi (for Lokhmotkin).
                        (Railroads—Track)

VELICHKIN, A.; KOZAK, L., inzh.

District catalogues and standardization of precast reinforced concrete elements for industrial construction. Prom.stroi.i inzh.soor. 4 no.2:50-52 Mr-Ap '62. (MIRA 15:11)

1. Glavnyy inzh. Kiyevskogo gosudarstvennogo instituta po proyektirovaniyu promyshlennogo stroitel'stva (for Velichkin). (Concrete products—Standards)

VELICHKIN, A.

New designs are a potential for lowering the cost of construction.
Prom.stroi.i inzh.soor. 4 no.5:9-14 S-O '62.   (MIRA 16:1)

1. Glavnyy inzh. Kiyevskogo gosudarstvennogo instituta po
proyektirovaniyu promyshlennogo stroitel'stva.
        (Industrial buildings—Design and construction)

83911

S/108/60/015/010/004/008
B012/B060

6.9400

AUTHORS: Velichkin, A. I., Ponomareva, V. D.

TITLE: Experimental Investigation of the Duration of Overshoots
             of the Noise

PERIODICAL: Radiotekhnika, 1960, Vol. 15, No. 10, pp. 21-26

TEXT: With reference to papers (Refs. 1,3) the authors describe their
own results. The experimental arrangement is first illustrated. The block
diagram is shown in Fig. 2. The procedure followed in the measurement of
the duration of noise overshoots resembled that of work (Ref. 3), and
consisted in measuring the amplitudes. The measuring device of the
system was worked out in three variants, which are briefly described. The
probability density of overshoot duration and the duration of the
interval between overshoots at different levels in normal noise and in the
Rayleigh noise were determined experimentally. The results given first
are those yielded by the investigation of normal noise transmitted through
a low-frequency filter and next, the results from the investigation of
normal noise transmitted through a band filter (Figs. 3, 4, and 5) are

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Experimental Investigation of the Duration
of Overshoots of the Noise

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S/108/60/015/010/004/008
B012/B060

given. Fig. 6 illustrates the results from the experimental checking of
formula (16) from paper (Ref. 2). Figs. 7 and 8 show the results obtained
from a study of the Rayleigh noise which was brought about by way of the
cascades of the intermediate-frequency amplifier of a shortwave receiver.
Results obtained revealed that the methods known at present for the
investigation of noise overshoot duration yield satisfactory results only
at the high levels and with a short duration of overshoots. In other cases
it is expedient to make use of the experimental results. The authors thank
V. I. Tikhonov for having formulated the problem. There are 8 figures and
3 references: 2 Soviet.

SUBMITTED: December 14, 1959 (initially)
              March 28, 1960   (after revision)

*Radiotekhnika, 1960, Vol. 15, No.9, pp. 10-20

Card 2/2

VELICHKIN, A.I.

Statistical study of the speech process. Elektrosviaz' 15
no.8:3-10 Ag '61.
(Information theory)   (MIRA 14:7)

34832

6.2000 (1159)
9.8300

S/106/62/000/003/001/010
A055/A101

AUTHOR: Velichkin, A.I

TITLE.   Interpolation of continuous communications with discrete
             transmission

PERIODICAL: Elektrosvyaz', no. 3, 1962, 3 - 7

TEXT: This article treats the interpolation of continuous communications
transmitted through discrete channels, with amplitude- and time-quantization of
the transmitted communication $\xi_j(t)$. Two problems are examined: 1) Determina-
tion of the interpolation method ensuring the smallest RMS deviation of the re-
ceived signal from the transmitted one. 2) Analysis of the dependence of the
distortions upon the interval $\Delta = t_i - t_{i-1}$. The following assumptions are made:
1) The transmitted communication represents a stationary and ergodic process with
correlation fuction $K(\tau)$ and dispersion σ^2; the average value of the process is
equal to zero. 2) Amplitude quantization leaves the signal practically undis-
torted. 3) Interferences do not distort the discrete transmissions. The inter-
polation process can be described by the formula:

Card 1/3

Interpolation of continuous......

$$\eta_j(t) = \sum_i x_{ji}\, f_i(t) \tag{1}$$

where $\eta_j(t)$ is the received communication, $x_{ji} = \xi_j(t_i)$, and $f_i(t)$ are the "non-random coordinate functions". The transmission accuracy criterion is:

$$\nu = M\left\{ \frac{1}{\Delta} \int_{t_1}^{t_{1+1}} \left[\xi_j(t) - \eta_j(t) \right]^2 dt \right\}. \tag{2}$$

Substituting (1) in (2) and developing (2), the author finds a set of equations permitting the determination of the optimum coordinate functions, i.e., the coordinate functions at which ν is minimum. A precise solution of this set of equations is possible in the majority of cases. An approximate solution is, practically, always possible. The author examines several particular cases and, especially, the case where the process has an exponential correlation:

$$R(t - t_1) = e^{-\beta|t - t_1|}. \tag{3}$$

At the end of the article, he reproduces several formulae permitting the estimation of the dependence of the distortions upon the interval Δ or, rather,

Card 2/3

Interpolation of continuous.....   S/106/62/000/003/001/010
                                                     A055/A101

upon 94. There are 2 figures and 3 Soviet-bloc references. The Soviet persona-
lities mentioned in the article are: Kotel'nikov; N.A. Zhelezn:v, AM Yaglom,
and N.K. Ignat'yev.

SUBMITTED: July 21, 1961

Card 3/3

S/024/62/000/006/019/020
E140/E135

AUTHORS: Velichkin, A.I., and Grushko, I.I. (Moscow)

TITLE: Optimal irredundant codes

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye
             tekhnicheskikh nauk. Energetika i avtomatika, no.6,
             1962, 171-177

TEXT: The problem considered is the coding of amplitude
levels in pulse-code modulation for remote-control systems. The
Gray code is an irredundant code constructed according to a given
law. Given a certain matrix of a function of the transition
probabilities between the quantisation levels to be coded, the
problem is to minimise the error in the presence of (assumed)
single errors in each code group according to a given probability
distribution. It is shown that in general the Gray code is not
the optimal for this problem, under the assumption of single
errors in the code groups. A matricial method is given for
obtaining such optimal codes.
SUBMITTED: February 21, 1962

Card 1/1

37531
S/046/62/008/002/002/016
B104/B102

24.1300

AUTHOR: Velichkin, A. I.

TITLE: Amplitude clipping of speech

PERIODICAL: Akusticheskiy zhurnal, v. 8, no. 2, 1962, 168 - 174

TEXT: The spectral density of attenuated speech is studied. Both forms of speech, the vocal and the non-vocal form have normal density distributions and different dispersions. The mean durance of both forms of sound is 120 μsec; the correlation time is less than 10 μsec. The two-dimensional distribution can, therefore, be represented as the sum of two functions of two-dimensional laws:

$$w_2(\xi_1, \xi_2, \tau) = p_r \cdot w_{2r}(\xi_1, \xi_2, \tau) + p_c \cdot w_{2c}(\xi_1, \xi_2, \tau), \tag{3}$$

where

$$w_{2r}(\xi_1, \xi_2, \tau) = \frac{1}{2\pi \cdot \sigma_{\xi r} \sqrt{1 - R_{\xi r}^2(\tau)}} \exp\left\{ -\frac{\xi_1^2 - 2 \cdot R_{\xi r}(\tau) \xi_1 \xi_2 + \xi_2^2}{2 \cdot \sigma_{\xi r}^2 \cdot [1 - R_{\xi r}(\tau)]} \right\}, \tag{4}$$

$$w_{2c}(\xi_1, \xi_2, \tau) = \frac{1}{2\pi \cdot \sigma_{\xi c} \sqrt{1 - R_{\xi c}^2(\tau)}} \exp\left\{ -\frac{\xi_1^2 - 2 R_{\xi c}(\tau) \xi_1 \cdot \xi_2 + \xi_2^2}{2 \cdot \sigma_{\xi c}^2 \cdot [1 - R_{\xi c}(\tau)]} \right\}. \tag{5}$$

Card 1/4

Amplitude clipping of speech

$w_2(\xi_1, \xi_2,)$ is the two-dimensional distribution of the probability density; $\xi(t)$ describes speech which is regarded as a steady random process; $R_{\xi\Gamma}$ and $R_{\xi c}$ are the correlation coefficients of vocal and non-vocal sound. The correlation function and spectral density of a steady random process are unambiguously coupled by Khinchin - Wiener transformations. With the aid of these transformations the correlation function can be obtained from spectral densities of speech determined experimentally:

$$K_\xi(\tau) = \sigma_\xi^2 \cdot R_\xi(\tau) = p_r \cdot \sigma_{\xi r}^2 \cdot R_{\xi r}(\tau) + p_o \cdot \sigma_{\xi o}^2 \cdot R_{\xi o}(\tau). \tag{10},$$

where

$$R_\xi(\tau) = \frac{K_\xi(\tau)}{\sigma_\xi^2} = e^{-\rho|\tau|} \cdot \cos \omega_0 \tau. \tag{9}$$

is the correlation coefficient of speech. σ_ξ^2 is the dispersion.. The subscripts Γ and o refer to vocal and non-vocal sound. For the spectral density of low speech

Card 2/4

Amplitude clipping of speech

$$S_{nr}(\omega) = \sigma_{nr}^2 \cdot \sum_{n=1}^{\infty} a_n \pi \frac{1}{2^{n-2}} \sum_{k=0}^{\frac{n-1}{2}} c_n^k \int_0^{\infty} e^{-n \cdot \rho \cdot \tau} \cos(n - 2k)\omega_0\tau \cdot \cos\omega\tau \cdot d\tau =$$

$$= \sigma_{nr}^2 \cdot \sum_{n=1}^{\infty} a_n \cdot A_n(\omega), \qquad (19)$$

where

$$A_n(\omega) = \frac{n \cdot \rho}{\pi \cdot 2^{n-1}} \sum_{k=0}^{\frac{n-1}{2}} c_n^k \left\{ \frac{1}{n^2\rho^2 + [(n-2k)\omega_0 - \omega]^2} + \frac{1}{n^2\rho^2 + [(n-2k)\omega_0 + \omega]^2} \right\} \cdot \qquad (20)$$

is finally obtained. For speech attenuated to the threshold of audibility $\sigma_{\eta\Gamma}^2 = \sigma_{\eta_j c}^2 = \sigma_{\eta}^2$ holds, and the spectral density acquires the form

$$S_n(\omega) = \frac{4}{\pi^2} \cdot \sigma_n^2 \cdot \int_0^{\infty} \arcsin(e^{-\rho\tau} \cdot \cos\omega_0\tau) \cdot \cos\omega\tau \cdot d\tau. \qquad (23).$$

The integral (23) was computed with a "Ural - 1" computer. The values given in a table can be used for calculations of the intelligibility of speech. There are 3 figures and 1 table.
Card 3/4

Amplitude clipping of speech   S/046/62/008/002/002/016
                                                B104/B102

ASSOCIATION: Voyenno-vozdushnaya inzhenernaya akademiya im. N. Ye.
             Zhukovskogo (Air-force Engineering Academy imeni N. Ye.
             Zhukovskiy) Moscow

SUBMITTED: May 26, 1960

Card 4/4

VELICHKIN, A.I.

Interpolation of continuous communications in the presence of
discrete transmission. Elektrosviaz' 16 no.3:3-7 Mr '62.

(Telecommunication)   (MIRA 15:4)

6.9200
6.9500

S/108/62/017/007/008/008
D288/D308

AUTHOR: Velichkin, A. I., Member of the Society (see
               Association)

TITLE: Correlation function and the spectral density
               of the quantized process

TEXT: The author deals separately with amplitude and time
coding and assumes a coder of arbitrary stepped non-linear charac-
teristics, expressed in terms of number of steps, initial level,
step intervals, and the delta-function. Formulas are derived for √/β
the correlation function and the process dispersion in the above
parameters and level probabilities. Their practical meaning is
explained, and graphs are constructed for the correlation function
and spectral density, with discrete step numbers as parameters,
indicating the inverse relationship between correlation time and
spectral width. A corresponding analysis of time quantization

Card 1/2

S/108/62/017/007/008/008
D288/D308

Correlation function and...

follows; it is shown that the spectral density drops to zero at frequencies which are multiples of the quantizing rate, high frequency components falling off with increasing quantizing period. There are 6 figures and 1 table. The English-language references read as follows: W. J. Bennett, BSTJ, v. 27, no. 3, 1948; I. Max, IRE Trans. on information theory, VIT-6, no. 1, 1960.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications im. A. S. Popov) /Abstracter's note: Name of Association taken from first page of journal./

SUBMITTED: June 16, 1961

Card 2/2

VELICHKIN, A.I.

Correlation function and spectral density of quantized speech.
Akust. zhur. 9 no.1:13-18 '63.   (MIRA 16:5)

1. Voyenno-vozdushnaya inzhenernaya akademiya imeni N.Ye.Zhukovskogo,
Moskva.
                                    (Speech)

S/108/63/018/002/001/010
D413/D308

AUTHOR: Velichkin, A. I., Member of the Society (see Asso-
ciation)

TITLE: The optimal characteristics of quantizing devices

PERIODICAL: Radiotekhnika, v. 18, no. 2, 1963, 3-9

TEXT: J. Max has given equations for determining the optimal cha-
racteristics of a device for quantizing continuous processes,
based on the criterion of minimum RMS error, but they require the
use of a computer: the author describes a graphical method based
on these equations, and quotes parameters obtained by it for quan-
tizing speech. He also considers parameters optimized for maximum
information content in the quantized process, which do not coincide
with the above, and shows that quantizers with uniform character-
istics have optimal properties if preceded by compressors and fol-
lowed by expanders. Using the maximum-information criterion, the
optimal compressor characteristic coincides with the integral dis-
tribution law for the process. The optimal expander characteristics

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S/108/63/013/002/001/010
D413/D308

The optimal characteristics ...

are not the inverse of the compressor characteristics. The noise power required to give equivalent loss of information is a convenient measure of the distortion introduced by quantization. There are 3 figures and 2 tables. The English-language references read as follows: J. Max, Trans. IRE on IT v. IT, III-6, no. 1, 1960; W. R. Bennett, BSTJ, v. 27, no. 3, 1948.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications imeni A. S. Popov) /Abstracter's note: Name of association taken from first page of journal_7

SUBMITTED: November 25, 1961

Card 2/2

ABSTRACT: The paper discusses the quantization of continuous intelligence corrupted by noise having a minimal mean-square error under the assumption that the process of quantization represents a mixture of intelligence and noise of the information transmitter; it is also assumed that the intelligence and noise have normal probability densities, are independent, and combine additively. The problem of optimal selection of the quantization thresholds and of the levels ensuring a minimum mean-square error during the quantization of a signal containing noise is solved for the following two cases of practical interest: levels having a nonuniform distribution and levels having a uniform distribution. In the first case, no limitations are imposed on the selection

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ACCESSION NR: AP4044824

of the values of levels and the quantization thresholds which are chosen to
satisfy the requirement of minimum mean-square error. In the second case,
the values of the levels are chosen such that the intervals between any
neighboring levels is the same, and no limitations are imposed on the quan-
tization thresholds. It was shown that the selection of the optimum values
of quantization thresholds, levels (in the case of nonuniform distribution)
or the interval between levels (in the case of uniform distribution) depends,
in the general case, on the intensity of the transmitter noise. When the
intelligence and noise are independent and have a normal probability density,
the optimal threshold values are only determined by the effective value of
the quantized mixture of intelligence and noise. If the levels are distributed
uniformly, the optimal threshold values are also distributed uniformly. When
quantizing intelligence containing noise, the mean-square error depends on
both the quantization and noise intensity. With increasing noise intensity,
the error increases and ceases to depend on the number of levels. A smaller
mean-square error can be obtained for a nonuniform distribution of levels
than for a uniform distribution. However, when the process is characterized
by a normal probability density, and the values of thresholds and levels are
optimal, then the difference in the mean-square error in the two cases is
small and noticeable only when the number of levels is high. Orig. art. has:

Card   2/3

ACCESSION NR: AP4044824

40 formulas, 1 figure and 2 tables.

ASSOCIATION: none

SUBMITTED: 01Jul63   ENCL: 00   SUB CODE: DP

NO REF SOV: 001   OTHER: 001

Card 3/3

ACCESSION NR: AP4026152   S/0108/64/019/003/0066/0075

AUTHOR: Velichkin, A. I. (Active member)

TITLE: Quantization of continuous messages with a minimum mean-square error

SOURCE: Radiotekhnika, v. 19, no. 3, 1964, 66-75

TOPIC TAGS: continuous message quantization, pulse code modulation, pulse code radio transmission, time quantization, level quantization

ABSTRACT: A general theoretical solution of the problem of simultaneous time and level quantization of a continuous message transmitted via a radio channel is offered; the minimum mean-square error is a basis of quantization. The quantizing of information with normal distribution (TV, telemetry) and with Rayleigh distribution (radar signals) is considered. It is found that: (1) in the case of time-level quantization, a two-dimensional distribution of the probability density is required in order to determine the optimum parameters of the quantizer; for longer quantization intervals and channel time lags, the

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ACCESSION NR: AP4026152

optimum levels approach the mean message value, which remains invariable with
the optimum quantizations; (2)   two quantization equations offered in the article
permit finding the optimum parameters of the quantizer; (3) in the case of a
normal message, the choice of optimum quantization thresholds is independent of
the sampling interval and channel delay; and (4) the mean-square error of quantiza-
tion increases with increasing   quantization interval and becomes independent
of the number of levels, and hence with a long sampling interval it is inexpedient
to have a large number of quantization levels. Orig. art. has: 1 figure,
29 formulas, and 2 tables.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi
(Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 13Dec62   DATE ACQ: 16Apr64   ENCL: 00

SUB CODE: EC   NO REF SOV: 003   OTHER: 001

Card 2/2

L 43797-65   IJT(d)/EWP(m)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l)   Po-4/Pq-4/Pf-4/Pz-4/

AUTHOR: Velichkin, A. I. (Moscow)

TITLE: Synthesis and investigation of discrete systems intended for transmitting continuous messages. Part I - Synthesis of optimal systems

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 1, 1965, 93-102

ABSTRACT   A synthesizing problem pertaining to both communication and

Card 1/2

L 4⁵⁰⁰⁻⁰⁻⁵

ACCESSION NR. APS007255

ASSOCIATION: none

SUBMITTED: 05May64   ENCL: 00   SUB CODE: DP, EC

NO REF SOV: 004   OTHER 00)

Card 2/2

L 1-911 - S

AP50 6 7 4   65 000 003 0114 0121   /

ABSTRACT: The statistical properties of the optimum discrete system, the synthesis of which was outlined in the first part of this paper, are described. The article proves that function, and the spectral density of the message estimate at the output of the system is calculated, taking into account the above-mentioned independence of signals. The

AUTHOR: Volichkin, A. I.

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Card 1/2

VELICHKIN, A.I.

Decoding of communications in systems with pulse-code modulation.
Radiotekhnika. 20 no.6:76-78 Je '65.   (MIRA 18:7)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radio-
tekhniki i elektrosvyazi imeni Popova.

L 07054-67   EWT(d)/FSS-2

ACC NR: AP6028543   SOURCE CODE: UR/0280/66/000/003/0135/0143

66
B

AUTHOR: Velichkin, A. I. (Moscow)

ORG: none

TITLE: Synthesis of discrete systems for transmitting continuous messages with considera-
tion of the effect of noise in the channel

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 3, 1966, 135-143

TOPIC TAGS: signal transmission, transmission line, signal noise separation, Markov
process, information theory

ABSTRACT: In this article the author solves the problem of synthesizing a system for trans-
mitting continuous messages by means of binary signals subjected to the effect of noise which
is applicable to communications and automatic control. The criterion of the minimum mean
square error is employed. A general solution of the problem of synthesizing systems with
and without a return channel is obtained by methods of the statistical theory of estimates. The
case of transmitting a normal Markovian message in a system with a return channel is ex-
amined in greater detail. Formulas are derived which describe two systems with prediction

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L 07054-67

ACC NR: AP6028543

(with and without a return channel) that are optimal with respect to the criterion of the minimum mean square error. For a further refinement of the structure of this system the probability of a message must be fully predetermined. This refinement was carried out for a normal Markovian message. In this case the approximate method of statistical linearization was employed, the use of which led to synthesis of a system with linear prediction. The direct channel of the synthesized system was not, strictly speaking, discrete. Discrete signals act at its input but continuous realizations of a mixture of the signal with noise acted at the output. The return channel is used for transmitting the values of the estimate and it is continuous. Orig. art. has: 27 formulas and 4 figures.

SUB CODE: 09,17/   SUBM DATE: 04Oct65/   ORIG REF: 004/   OTH REF: 001

Card 2/2   vmb

BEREZOVSKIY, A.P.; VELICHKIN, A.N.; SILKINA, N.I.

Practice of using continuous-action loading and hauling machines
in the Dzhezkazgan Mine. Trudy Inst. gor. dela An Kazakh. SSSR
10:64-66 '63.   (MIRA 16:8)

(Dzhezkazgan District—Mining machinery)

LOGUNOV, A.N., gornyy inzh.; VELICHKIN, A.N., gornyy inzh.

Using charges with air spaces and igdanite in Kazakhstan
enterprises. Vzryv. delo no.54/11:342-349 '64.

(MIRA 17:9)

1. Trest Kazakhvzryvprom.

VELICHKIN, A.N.

Possibility of mining blocks by the underground leaching
method. Trudy Inst. gor. dela AN Kazakh.SSR 12:159-163 '63.
(MIRA 17:8)

VELICHKIN, A. P.
VELICHKIN, A.P., insh.

Precast reinforced concrete in industrial construction. Nov.v
stroi.tekh. no.11:20-29 '57. (MIRA 10:12)

1. Kiyevskoye otdeleniye Promstroyproyekta.
   (Ukraine--Industrial buildings) (Precast concrete construction)

VELICHKIN, A.F., inzhener.

Panel-framed building construction in Kiev. Stroi.prom. 32 no.6:2-7
Je '54. (MLRA 7:6)
(Kiev--Apartment houses) (Apartment houses--Kiev) (Building)

TOPIC TAGS: mechanical testing, fatigue testing, aluminum alloy

ABSTRACT: The effect of audio frequency vibrations on aging of aluminum alloys was

VELICHKIN, G.

Bee Culture - Study and Teaching

Courses for district apiculturists. Pchelovodstvo 29 no. 10, 1952.

9. _Monthly_ _List_ _of_ _Russian_ _Accessions_, Library of Congress, _November_   195$\frac{3}{2}$ Unclassified.

BUROV, L., inzh.; ZUBIYETOVA, M. inzh.; VELICHKIN, I., kand.tekhn.nauk; NISNEVICH, A., kand.tekhn.nauk

Steel oil control piston rings. Tekh.v sel'khoz. 21 no.8:80-83 Ag '61.

(Piston rings)

(MIRA 14:7)

VELICHKIN, I.

What's new in the Main Administration for Housing and Public
Construction in Moscow Province. Stroitel' no. 12:3 D '60.
(MIRA 13:12)

1. Ispolnyayushchiy obyazannost' nachal'nika Glavmosoblstroya.
(Moscow Province--Construction industry)

VELICHKIN, I.A., doktor vet. nauk.

Experiment in controlling Delafondia, Alfortia, and Strongylus infections in horses kept in herds. Trudy VIGIS 5:173-174 '53.
(Parasites--Horses)   (Anthelmintics)   (Nematoda)   (MIRA 11:1)

S/122/63/000/001/002/012
D263/D308

AUTHOR: Velichkin, I.N., Candidate of Technical Sciences

TITLE: Resistance to wear and useful life of machine parts

PERIODICAL: Vestnik mashinostroyeniya, no. 1, 1963, 15-20

TEXT: The purpose of this study is to analyze nominal and actual wear resistance of machine components and to explain differences between these two qualities. Coefficients

$$A = \frac{J_n}{J_a} \; , \; B = \frac{J_n'}{J_n''} \; , \; V = \frac{J_n'}{J_a''} \; , \; G = \frac{J_a}{F}$$

are introduced (J_n - nominal wear resistance, J_a - actual wear resistance, J' - wear resistance of new machines, J'' - wear resistance of machines after general overhaul, F - actual useful life of machine part). Several typical examples are presented and discussed in detail. Conclusions: differences between nominal and actual wear resistance, between wear resistance of new and overhauled machines, and between nominal resistance of

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Resistar e to wear ...

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part, and their actual useful life are caused mainly by improper working conditions and maintenance and are often due to re-use of partly worn machine components. Coefficients A, B, and G depend on the degree of perfection of their design, quality of production and overhaul and also on exploitation methods. There are 3 figures and 2 tables.

Card 2/2

VELICHKIN, I.N., kand. tekhn. nauk

Ways of increasing the reliability and durability of tractor
engines. Trakt. i sel'khozmash. no.5:3-6 My '64.   (MIRA 17:6)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy
institut.

VELICHKIN, I.M., YEVGENYEV,V.O., ANTIPOV, M.S.

"GB-58 and GT-58 Gas Generator Tractors" AVTo i Trak From No 7,
Jul 1951

ARTAMONOV, M.D., kandidat tekhnicheskikh nauk; VELICHKIN, I.N., inzhener;
AKOPYAN, S.I., kandidat tekhnicheskikh nauk, redaktor; GOSTEV, B.I.,
kandidat tekhnicheskikh nauk, redaktor; VASIL'YEV, A.V., kandidat
tekhnicheskikh nauk, redaktor; KRISTI, M.K., professor, redaktor;
L'VOV, Ye.D., professor, redaktor; MALASHKIN, O.M., inzhener, redak-
tor; YUDUSHKIN, N.G., inzhener, redaktor.

[Investigation of the G-58 gas engine] Issledovanie.gazogeneratornogo
dvigatelia G-58. Moskva, Gos.nauchno-tekh.izd-vo mashinostroit.lit-ry,
1954. 26 p. (Moscow.Gosudarstvennyi soiuznyi nauchno-issledovatel'skii
traktornyi institut [Trudy], no.11).   (MLRA 9:1)

1.Direktor nauchno-issledovatel'skogo avtotraktornogo instituta (for
Akopyan).   (Gas and oil engines)

VELICHKIN, I.

Dependance of the capacity of gas-generator engines from the
excess air coefficient. Avt.trakt.prom. no. 12:8-11 D '54.
(MLRA 8:2)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
(Automobiles--Engines (Compressed-gas))

VELICHKIN, I.I., kand. tekhn. nauk; NISNEVICH, A.I., kand. tekhn. nauk; ZUBIYETOVA, M.P., kand. tekhn. nauk; ZHDANOVSKIY, N.S., doktor tekhn. nauk, retsenzent; SAVKIN, I.F., inzh. red.

[Rapid wear tests of diesel engines] Uskorennye ispytaniia dizel'nykh dvigatelei na iznosostoikost'. Moskva, Izd-vo "Mashinostroenie," 1964. 182 p.   (MIRA 17:7)

VELICHKIN, I. N.

"Investigation of Certain Peculiarities in the Operating Process of the Gas-Generating Engine G-58." Cand Tech Sci, Moscow Automobile and Road Inst imeni V. M. Molotov, Min Higher Education USSR, Moscow, 1955. (KL, No 10, Mar 55)

So: Sum. No 670, 29 Sept 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

VELICHKIN, I.N., inzhener; SKIRIDOV, I.S., inzhener.

How to improve crakcase oil filtering in the D-54 and G-58
engines. Torf.prom.32 no.1:16-17 '55.   (MLRA 8:3)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
     (Gas and oil engines--Filters)

VELICHKIN, I.N., kandidat tekhnicheskikh nauk.

Characteristics of the operating cycle of the G-58 gas
generator. Vest. mash. 36 no.8:6-11 '56.   (MLRA 9:10)

(Gas producers)

VELICHKIN, I.N., kand.tekhn. nauk; AKOPYAN, S.I., kand. tekhn.nauk, otv.red.;
GOSTEV, B.I., kand.tekhn.nauk, zam.otv.red; VASIL'YEV, A.V., kand.
tekhn.nauk, red.; KRISTI, M.K., prof., red.; L'VOV, Ye.D., prof., red;
MALASHKIN, O.M., kand.tekhn.nauk; YUDUSHKIN, N.G., inzh.; UVAROVA,
A.F., tekhn.red.

[Some characteristics of the performance of gas-producer engines]
Nekotorye osobennosti rabochego protsessa gazogeneratornykh dvigatelei
Moskva, Gos. nauchno-tekhn izd-vo mashinostroit. litry, 1958. 37 p.
(Moscow. Gosudarstvennyi soiuznyi nauchno-issledovatel'skii
traktornyi institut [Trudy], no.16)   (MIRA 12:3)
                (Gas and oil engines--Testing)

VELICHKIN, I.N., kand.tekhn.nauk

Circulation of abrasive particles in engines. Avt.prom. no.2:17-21
F '59.   (MIRA 12:3)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
            (Automobile engineering research)

SOV, 11?-59-2-9/20

AUTHOR: Velichkin, I.N., Candidate of Technical Sciences

TITLE: The Circulation of Abrasive Particles in Engines (Tsirkulya-
             tsiya abrazivnykh chastits v dvigatelyakh)

PERIODICAL: Avtomobil'naya promyshlennost', 1959, Nr 2, pp 11-21 (USSR)

ABSTRACT: The article deals with the circulation of dust particles
             which are sucked into the engine and with a method of de-
             termining their influence upon the wear of moving parts.
             Results of tests conducted by NATI with a "D-54" engine are
             given. In these tests a radioactive iron isotope was
             mixed with the dust particles fed with air into the engine,
             so that their circulation could be traced subsequently, and
             a specific amount of dust was also added to the oil in the
             crankcase to create real working conditions for the engine
             under test. The obtained results prove that the method is
             suitable for the fast testing of all main engine parts for
             the wear.

ASSOCIATION: NATI

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VELICHKIN, I.N., kand. tekhn. nauk

Wear resistance of D-54 diesel tractor engines. Trakt. i
sel'khozmash. no. 6:24-28 Je '58.   (MIRA 11:7)
(Diesel engine)

VELICHKIN, I.N., kandidat tekhnicheskikh nauk

Studying the wear resistance of tractor engines. Avt. i
trakt.prom. no.3:33-34 Mr '57.   (MLRA 10:5)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
                (Tractors--Engines)

VELICHKIN, I.N., kand.tekhn.nauk; ZUBIYETOVA, M.P., mladshiy nauchnyy sotrundik

Accelerated testing of tractor engines for abrasive wear. Trakt. i sel'khozmash. 30 no.9:9-11 S '60.   (MIRA 13:9)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
(Tractors --Engines)

VELICHKIN, O. (Moskva).

Two-channel room antenna. Radio no.8:42 Ag '57.   (MIRA 10:8)
(Television--Antennas)

PHASE I BOOK EXPLOITATION

SCV/3836

Velichkin, Oleg Dmitriyevich, Yefim Vol'fovich Lysenko, and Yakov Mikhaylovich Smorodinskiy

Primeneniye poluprovodnikovykh diodov i triodov v ustroystvakh releynoy zashchity i avtomatiki energosistem (Use of Transistor Diodes and Triodes in Relay Protection and in the Automation of Power Systems) Moscow, 1958. 68 p. (Series: Peredovoy opyt proizvodstva. Seriya "Promyshlennaya energetika" : vyp. 11-12) 4,000 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR; Moscow. Dom nauchno-tekhnicheskiy propagandy im. F. E. Dzerzhinskogo.

Ed.: M.I. Tsarev; Tech. Ed.: R.A. Sukhareva; Resp. Reviewer for this Book: I.A. Manin.

PURPOSE: This booklet is intended for persons interested in relay protection and automation systems.

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Use of Transistor Diodes (Cont.)

COVERAGE: The booklet examines the practical utilization of transistor diodes and triodes, as well as relay circuits and circuits of automation and protection systems. Ch. I and V were written by Engineers O.D. Velichkin and Ye.V. Lysenko; Ch. II by Ye. V. Lysenko; Ch. III and IV by O.D. Velichkin; and Ch. VI by Ya. M. Smorodinskiy, Candidate of Technical Sciences. There are no references.

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Use of Transistor Diodes (Cont.)

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Use of Transistor Diodes (Cont.)

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Use of Transistor Diodes (Cont.)   SOV/3836

AVAILABLE: Library of Congress

Card 5/5   KM/RM/lsb
                                                     7-8-60

VELICHKIN, I.N., kand. tekhn. nauk; SMIRNOV, G.A., inzh.; NEZELENOV, Yu.V.

Increasing the operational reliability and the effectiveness of oil purification systems of tractor engines. Trakt. i sel'khozmash. no.7: 6-8 Jl '65. (MIRA 18:7)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut.

VELICHKIN, I.N., kand. tekhn. nauk

Second Scientific Conference on the Increase of Durability
and Reliability of Tractor Engines. Trakt. i sel'khozmash.
no.10:3 of cover O '64.   (MIRA 17:12)

VELICHKIN, I.N., kand.tekhn.nauk

Service life until capital repair, and guaranteed serviceability
of tractor engines. Trakt. i sel'khozmash. no.1:3-5 Ja '64.
(MIRA 17:4)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy
traktornyy institut.

VELICHKIN, I.N., kand. tekhn. nauk; ISAYEV, Ye.V.; NISHEVICH, A.I.; kand. tekhn. nauk; PUSTOVALOV, I.V.

Effect of various hopping-methods on the wear of piston rings of a tractor diesel engine. Avt. prom. 29 no.4:6-8 Ap '63.
(MIRA 16:6)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut.
(Diesel engines—Testing)

VELICHKIN, I.N., kand.tekhn.nauk

Wear resistance and service life of machine parts. Vest.
mashinostr. 43 no.1:15-20 Ja '63.   (MIRA 16:2)
                    (Mechanical wear)

VELICHKIN, I.N., kand.tekhn.nauk

Increasing the wear resistance of hopped up engines. Trakt.
i sel'khozmash. 31 no.10:12-15 O '61.   (MIRA 14:12)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
               (Tractors—Engines)

VELICHKIN, N.I.; ROZHKOV, N.G., red.; TURABAYEV, B., tekhn.red.

[Mineral springs "Ayak Kalkan"] Mineral'nye istochniki "Aiak-Kalkan". Alma-Ata, Kazgosizdat, 1961. 68 p.
(MIRA 17:1)

RUBINOVICH, Ya.V.; VELICHKIN, O.D.

Pulsating pneumatic valve. Mash. i neft. obor. no.2:39-43
'63.
(MIRA 17:8)

1. Spetsial'noye konstruktorskoye byuro po avtomatike v
neftepererabotke i neftekhimii.

VELICHKIN, Oleg Dmitriyevich, inzh.; LYSENKO, Yefim Vol'fovich, inzh.;
SMORODINSKIY, Yakov Mikhaylovich, kand.tekhn.nauk; MANIN, I.A.,
otv. za vypusk; TSAREV, M.I., red.; SUKHAREVA, R.A., tekhn.red.

[Use of transistor diodes and triodes in relay guarding devices
and in the automatic control of power systems] Primenenie
poluprovodnikovykh diodov i triodov v ustroistvakh releinoi
zashchity i avtomatiki energosistem. Moskva, Ob-vo po raspro-
straneniiu polit. i nauchnykh znanii RSFSR. Mosk.dom nauchno-
tekhn.propagandy im. F.E.Dzerzhinskogo, 1958. 68 p. (Peredovoi
opyt proizvodstva. Ser."Promyshlennaia energetika," nos.11-12)

(MIRA 13:2)

(Transistors)   (Automatic control)

VELICHKIN, O.D.

VELICHKIN, O.D., inzh.

Conference on semiconductors in relay protection. Elektrichestvo
no.12:83-84 D '57.   (MIRA 10:12)
                (Electric relays) (Semiconductors--Congresses)

VELICHKIN, P. A.

"Control of horse strongylatosis."

report submitted for 1st Intl Cong, Parasitology, Rome, 21-26 Sep 1964.

Agriculture Inst, Moscow.

VELICHKIN, P. A.

Velichkin, P. A.   "Enzootic al'fortiotic peritonitis among horses kept in herds",
Sbornik rabot po gel'mintologii (Vsesoyuz. in-t gel'mintologii im. akad. Skryabina),
Moscow, 1948, p. 73-82.

SO: U-3042, 11 March 53, (Letopis'nykh Statey, No. 10, 1949).

VELICHKIN, P. A.

Pukhov, V. I., Velichkin, P. A., and Krivoshta, Ye. Ye. "A study of methods of radical prophylaxis in delafondiosis, alfortiosis, and trichinonematosis of horses kept in herds", (Report 2), Sbornik rabot po gel'mintologii (Vsesoyuz. in-t gel'mintologii im. akad. Skryabina), Moscow, 1948, p. 185-88.

SO: U-3042, 11 March 53, (Letopis'nykh Statey, No. 10, 1949).

VELICHKIN, P.A., V.P. LOGGINOV, V.A.ANTONOV

"Application of Phenothiazine in Strongilidosis and Parascaridosis in Horses under Herd
Condition.
SO:Veterinariya, Vol. 25,No14,5-9,1948

NOTE: Vet. references list the following: P.A. Velichkin (Candidate of veterinary
Sciences, Major Veterinary Service), V.P. Logginov (Lt. Col, Vet. Service), and
V.A. Antonov (Lt. Col, Vet. Service, Laboratory of the TSUVS (Central
Administration of Military Horse Studs), Min. of the Armed Forces.

VELICHKIN, P. A., professor;   YAKOVLEV, S.A.

Toxicity of phenothiazine in horses. Veterinariia 30 no.8:46-49
Ag '53.   (MLRA 6:8)

1. Starshiy veterinarnyy vrach Vetupravleniya Glavzhivupra
Ministerstva sel'skogo khozyaystva i zagotovok SSSR (for Yakovlev)

USSR/Farm Animals - Poultry   Q

Abs Jour   : Ref Zhur- Biol., No 15, 1958, 69424

Author   : Velichkin, P.A., Dankov, V.G.
Inst   : -
Title   : Feeding of Squash to Hens in Order to Control
              Ascaridosis and Heterakidosis

Orig Pub   : Ptitsevodstvo, 1957, No 9, 40

Abstract   : No abstract.

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VELICHKIN, P.A., prof.

Evaluating deep unchangeable litter for hens from the point of view of sanitation and helminth control. Ptitsevodstvo 8 no.10: 40-41 O '58.   (MIRA 11:10)

1. Vsesoyuznyy sel'skokhozyaystvennyy institut zaochnogo obrazova-niya.

(Litter (Bedding)) (Parasites--Poultry)

VELICHKIN, P.A., prof.

Eradicating Strongylidae and Parascaris from horses on breeding farms. Veterinariia 35 no.8:47-49 Ag '58.   (MIRA 11:9)

1. Vsesoyuznyy sel'skokhozyaystvennyy institut zaochnogo obrazovaniya.
        (Nematoda) (Horses--Diseases and pests)

VELICHKIN P. A. (Professor) and CHUGUNOV A. S. (Veterinary Surgeon of the First Moscow Stud-Farm)

"Piperazine salts in parascaridosis (equine ascariasis) and strongilatosis (strongyle infestation of horses.)"

Veterinariya, Vol. 38, No 12, December 1961, P. 17.